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ABSTRACT

Training is one of the many means that an organization may use to help its employees in their adaption to organizational change. F. Olsen Ltd. is a major Norwegian International Shipping organization. This study was concerned with the Olsen Berths based at Mill Docks in the Port of London. The major problems, as defined by senior management at that time, were as follows: (1) the supervisors were not prepared to work in different ways to suit the new methods of work; (2) the supervisors would not accept that they were an integral part of management; and (3) the intergroup rivalry between the supervisors at the two berths was having a bad effect on work output. The first task for the trainer and researcher was to produce some sort of quantifiable factual evidence of the present activities of the supervisory team. Management meetings were held to identify and solve the problems. The intention from the start of this project had been to develop a management team at Olsens that would be self-regulating and responsible for its own self-development. The evidence from the study suggests that this objective was at least partly achieved. The Olsen study offers some insights into the possible requirements of an effective change program. All those involved in change must be consulted about the reasons for change and its possible effects. (CK)

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The Supervisor and Technological Change - A Study of the Changing Role of the Supervisor in the Port Transport Industry

Summary of a Thesis entitled "Organisational Change and Supervisory Effectiveness" submitted for the Degree of Doctor of Philosophy in the University of London by P. JACKSON Ph.D. (London), M.Phil. (London), B.A. (Hull)

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Editor's Note

This booklet is a summary of the work contained in a Thesis (355 pages) submitted for the Degree of Doctor of Philosophy at Birkbeck College, University of London. Peter Jackson, the author, was seconded to the Training Research Unit of the National Ports Council as a research Fellow during the period in which this project was carried out.

Any summary tends to change the emphasis of the original. In editing this booklet I have consciously attempted to extract material which is relevant to the training situation and hence the emphasis is not necessarily that originally intended by the author of the Thesis.

B. Wilkinson
National Ports Council
Training Research Unit

1970

The National Ports Council are grateful to Fred Olsen Lines for the opportunity provided to their Training and Training Research staff for this study.

Introduction

The 1970's may well see a bigger transformation of the working methods in this country's docks than has so far occurred this century.

This transformation will mean that most of the industry's back-breaking work will no longer fall on the shoulders of the dockers. Instead it is the machines which will provide the muscle-power.

This change will not however occur at the same rate in all ports and we may anticipate that the conventional berth will be a common sight in many of our ports for a long time to come. Where this change does come however there will be a need to use the new expensive machinery as frequently as possible – hence the need for shift work in the industry. There will be fewer dockers but their working conditions will be as good as any working group in the country and their wages will be as high, if not higher than most of their industrial contemporaries.

This change has already reached an advanced stage at berths in several ports. Employers at these berths have not found this process of change an easy one. They have discovered that the strength of their organisations depends very largely on the knowledge, skills and attitudes of the men they employ. Managers have soon realised that no matter how competent they and their subordinates were under the old system of working, a new system requires new skills and a new approach to problems.

It seems probable that the problems which these employers have come up against are but a microcosm of the many problems which the whole industry will soon have to face. If the industry can learn from the way these employers have tackled their problems then the possible savings in terms of human anguish and return-on-capital may be enormous.

Training – Its Importance In A Changing Organisation

Training is but one of the many means that an organisation may use to help in its adaption to a changing world. We train people because their skills do not match their tasks.

Seen in this way it may be appreciated that the training given to an employee may vary from specific training in a specialised skill appropriate to a particular task, to more generalised attempts to help an individual realise his true potential.

In the docks industry training has a particularly important role to play. In the past there has been a lack of trust between some employers and their employees and this has created attitudes which now stand in the way of modernisation. Training offers the means by which the enormous changes now going on in the industry may be understood and carried through in the most effective manner with proper concern for the effects on individuals as well as organisations.

The research discussed in this booklet is concerned with the evaluation of the development of a Management Team working in a rapidly changing organisation in the London Docks. In particular it is concerned with trying to determine the effectiveness of a specific method of Supervisory training. The researcher was in addition concerned with the usefulness of several evaluation techniques developed elsewhere and this also formed an important part of the study.

The results are of considerable interest to anyone in any way concerned with implementing a change programme in a similar organisation. The limitations and implications of the training programme are discussed, together with the apparent requirements of a similar but perhaps more effective organisational change programme.

The part played by evaluation

Despite the fact that organisational change is an everyday fact of life for many people it is still not fully understood. Managers and social scientists who create and study change-situations find that they soon become entangled in a web of influence where change in one part of the organisation inevitably creates change and therefore problems in another part. Social scientists have found that changes sought by an organisation through training will persist only if supported by a range of changes elsewhere in the organisation.

It follows that training within an organisation requires the availability of information about changes both in the organisation and the individual. The trainer must know such things as the productivity of workers, the turnover in jobs, when and where new equipment is going to be introduced. At the same time he needs to know how the workers feel about their jobs, the organisation and their management.

The provision of this information is one of the most important aspects of any training evaluation. *In toto* any evaluation programme should consider the following four questions:

1. Why and with what intention is a training programme started?
2. What is the content of the training programme and how is it implemented?
3. What results are expected and how can they be measured?
4. What changes have occurred as the result of training which were or were not expected?

Seen in this way the evaluation of training is a continuous process which should relate the training programme to the achievement of the organisation's objectives. Interest in training evaluation methods has definitely increased in the United Kingdom during the last two or three years. In general, attitudes to the problem of assessing the value of training have varied, from total scepticism about whether it is possible

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at all, to a belief in the need to prove by 'hard' facts that training really pays off. Both the NAPE (See Five Point Plan Jan. 1968) and the NPC have accepted that training evaluation must be an integral part of any training programme.

Most organisations which are going to spend money on training will require evidence of what that training achieves. Up until now the provision of such evidence has been hampered by a shortage of practical methods which could be used to measure the results.

Official reports on training problems to date (for instance, the series on Supervisory Training at the Ministry of Labour – now the Department of Employment and Productivity) usually content themselves by stating that the problem of training evaluation is one for further study. It is seen as extremely important, but fraught with difficulties.

Is it then time to say that evaluation is desirable but unattainable?

From the arguments and evidence of European and American workers it would appear that:

Firstly, the nature and possibility of evaluation depends on the training philosophy and objectives. If training is seen as an individual experience which is designed to 'happen' to a manager on a training course separated from other management activities, there are likely to be very great difficulties in proving that the experience will pay-off for the organisation concerned. If on the other hand, training is not seen as a programmed activity, but as an attempt to help managers to learn more quickly and develop insight into their problems, evaluation techniques can well be used to help to make the process more effective.

Secondly, it is useful to conceive of the training process as a dynamic system in which it is necessary continuously to monitor and measure changes taking place at every point in the system. Indeed, the trainer has to carry out this evaluation in order to know where he and the organisation have got to.

Finally it should be appreciated that the methods developed for helping trainers with the evaluation of 'less obvious changes' created by training are not as well developed as those available to help trainers evaluate 'immediate changes' created by training.

The evaluator when he looks at an organisation must necessarily interpret that which he sees. If his interpretation is wrong, if he is not fully aware of the way in which changes in one part of the organisation can affect the other parts, then he will find it very difficult to measure the effects of training. The further he gets from the 'direct' effects of training the more numerous and difficult his problems became.

How can we evaluate a training scheme?

1. Subjective evaluation

Most reports on the evaluation of supervisory training rely on the

evaluation by the participants. By means of questionnaires, interviews and discussions, the participants express their views on the training as a whole, or parts thereof; the abilities of their teachers; the facilities they have been provided with, and so on. These studies tend to culminate in highly positive findings if the participants are satisfied with the physical setting of a course and with the people who supervise and teach it. While such evaluations may reveal attitudes to the training programme they provide no measure of effective change as a result of the training, and therefore have a very limited usefulness.

2. Training-related measures of change

This method aims to assess changes during the training in terms of the knowledge, skills and attitudes which appear to be necessary for effective job performance. By measuring what a person brings to a course and comparing this with his knowledge, skills and attitudes at the end of the course some insight may be gained into the usefulness of the training programme itself.

3. Job-related measures of change

When using this method the first step towards setting-up a training scheme is to find out exactly what the trainee has to learn. In occupational training, this involves a systematic analysis of the job with particular reference to the difficulties and distastes of the people at present doing the job, and a review of the job expectations held by their present supervisors. Such an analysis will give rise to the determination of specific training objectives stated in terms of an employee's performance as well as the specification of criteria for successful performance. From such statements it is possible to develop specific training methods and media designed to meet these objectives. The final stage in the process is to evaluate the newly derived programme in terms of its own stated objectives and eventually with on-the-job performance.

If a trainer's aim with an evaluation study is to show how training changes the performance of participants on the job, it will be necessary for him to devise job-related criteria in order to measure any effect of training. In thus committing himself, he should be aware of and accept the fact that relevant performance data are extremely difficult to obtain. The job situation of managers in general depends not only on what they do by themselves or in collaboration with other staff but also on the organisation's policies, the external fluctuations of business, and so on. In the face of this complexity the trainer usually has no choice but to rely on subjective evaluations by the trainees or their superiors.

On the other hand if the trainer uses only training-related criteria to find out how a course has changed the knowledge, skills and attitudes of its participants, he should accept that this will not enable him to answer the question: how has training influenced participants' performance in the job situation?

The Olsen Study

F. Olsen Ltd. is a major Norwegian International Shipping organisation. This study was concerned with the Olsen Berths based at Millwall Docks in the Port of London.

During the winter of 1966–67 the organisation, which is heavily committed to a Unit Load concept of 'through transportation' decided to build a new berth at Millwall Docks to be ready for the summer of 1967. The Unit Load System also necessitated, apart from a new berth, new ships with side-port loading and discharge, requiring totally different cargo-handling techniques. The old and new berth had a distance of approximately half a mile between them.

It became clear to Olsens, whilst negotiating a new agreement with the men operating the berths, that the traditional precedent-bound labour-force with its maximum protective practices, 'casual labour' system and fluctuating wages would not permit fully effective time-saving in the way that a Unit Load system could provide. For this reason Senior Management in London decided that the quickest way to overcome these labour problems was to 'buy the book'. In June, 1967, the existing labour force, 250 strong ,was 'decasualised', in the sense that every man was offered a Terminal Agreement Contract which ensured a salary of £29 10 0d. per week plus overtime. (The average Take-home pay for a London dock worker, including piecework, bonuses and overtime, before September 1967 was £25 10s. 0d.)

The organisational structure of the berths at this time is given below:

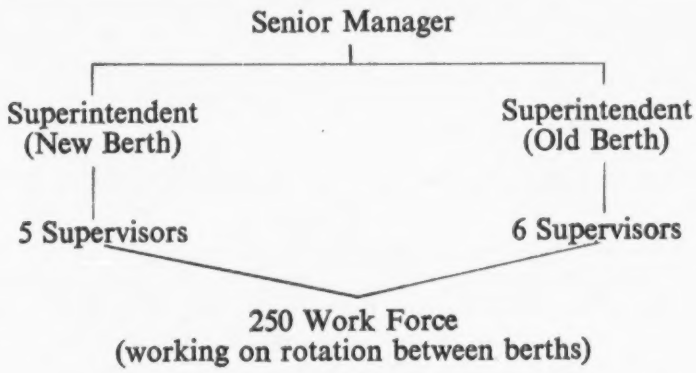


DIAGRAM I

Throughout this study the term Senior Management is used to include the Senior Manager plus the two Superintendents. The Supervisory Team consists of all 14 staff personnel. The Supervisors are first-line management in direct control of the Work Force and it is this grade with which this study is initially concerned.

The Work Force was split approximately half to each berth and the men worked on a rotation basis. Traditional gang structures in the Work Force were broken down and the men divided administratively into Work Units of nine men, the number which seemed to give optimum opportunity for flexibility.

A limited agreement was introduced at the new berth in May 1967 and one of the major problems to emerge was that the Supervisors were finding it difficult to adapt to the new situation.

Having thus 'changed' the old system so rapidly the Olsen Management had anticipated few Work Force problems. They soon found that this was not the case and at the point of the Work Force Terminal Agreement being signed, the Senior Manager at Olsens contacted the Training Division of the National Ports Council. It was agreed that one of the Training Development Officers should be assigned part-time as a Training Consultant to the organisation. (He is hereafter referred to as the Trainer).

At this stage also, a researcher, from the National Ports Council's Training Research Unit first came into the organisation.

The major problems as defined by senior management at that time were as follows:

1. The Supervisors were not prepared to work in different ways to suit the new methods of work.
2. The Supervisors would not accept that they were an integral part of management.
3. The inter-group rivalry between the Supervisors at the two berths, which was the result of previous status differences, was having a bad effect on work output.

The researcher saw in this situation the opportunity to answer two questions:

Firstly, in this organisation the emphasis in the Trainer's activities was to create a Supervisory Team which would be consulted on all matters relating to the working of the berths, and which was eventually to participate in company policy decisions regarding change. Was this kind of Supervisory development possible and, if so, how and with what results?

Secondly, there had been a great deal of controversy over the past two or three years regarding the value of the National Examination Board of Supervisory Studies (N.E.B.S.S.) system of Supervisory training and other formal largely classroom-based Supervisory training courses. How would the alternative system of Supervisory development adopted by Olsens relate to these systems?

The initial stages

The first task for the trainer and researcher was to produce some sort of quantifiable factual evidence of the present activities of the Supervisory Team. As a first step they met the Supervisory Team and explained that Senior Management felt that the performance of the Management Team as a whole could be improved. They also pointed out that Senior Management realised that the change in working methods had created many new problems for the Supervisors.

Their next step was to interview each of the Supervisors and carry out activity-sampling on several of them. From this, job descriptions for each of the four major supervisory functions within the organisation were drawn up.

Having obtained this information the task for the Trainer, the Researcher and the Management Team was then to attempt definition of Problem-based Change Objectives and the means by which these objectives could be attained. These Change Objectives were defined and re-defined after a complex series of 'give' and 'take' meetings between the Senior Manager, the Trainer and the Researcher over a considerable period. They were also discussed and agreed with the Supervisory Team. Only certain changes which could be measured and which were defined in terms of their measurement were subsequently used by the Researcher as meaningful Change Objectives.

The development of a training method

The Trainer's intention was to use a problem solving type of approach to Supervisory training in Olsens. It followed then that the emphasis within the training method used would have to be on helping the Supervisory Team to find and establish realistic and efficient means of dealing with their particular work problems.

There appeared to be a number of ways in which this might be attempted:

(a) The Supervisors could be helped to look at their own situations critically and analytically as a team.

(b) The Supervisors could be helped to evaluate and learn from their own experience. This could be partly a psychological problem involving the building up of mutual self-confidence so that mistakes could be openly discussed and partly a question of deliberately setting aside time for such discussions.

(c) The Supervisors could be encouraged to give more information to Senior Management about 'shop floor' problems and conditions. This would mean that the Supervisors would have to realise that keeping silent about their problems could only be successful in protecting their interests in the short-run. Further they would

have to realise that any strategy aimed at 'training' the Senior Manager to take a more realistic view of their problems would be to their benefit. Such a course would clearly require a change in the attitudes of the Senior Manager. He would have to be in closer contact with Supervisors and be ready to investigate any problems they might have.

With these ends in mind the major characteristic of the training strategy at Olsens was an emphasis on the study of job activities and the use of feedback data from the evaluation of the 'training' to the Management Team. One of the principal jobs of the trainer was to be a catalyst in the analysis of work techniques currently in use, and to provide information either himself or through others which would assist in assessing their value.

This strategy was based on the assumption that it may be possible to get apparent acceptance, but it would not be possible to get commitment by imposing targets on the Management Team. It was considered that the establishment of new approaches to the task should involve the Senior Manager, the Superintendent and the Supervisory Team in the joint, open consideration of their work situation and its attendant problems.

The training method in practice

Having decided on the training method to be used meetings between the Supervisory Team the Trainer and the Researcher were arranged. Senior Management were not present at these meetings initially.

Full confidentiality of any information given to the Researcher was agreed and the Trainer explained that any discussions arising or decisions taken at the meetings would not be reported to Senior Management without the consent of the Supervisors.

The Trainer emphatically stressed during these meetings that any learning, development or changes that might result from the meetings would be totally the responsibility of the Supervisory Team. The Trainer would not be making recommendations for change: he would simply be providing ideas, information, facts and theory which would enable the team to make its own decisions in a more informed manner.

During the next month four meetings between the Supervisory Team and the Trainer (with the Researcher present) took place before the Team realised and suggested that there appeared little point in using the Trainer to relay information to Senior Management. Instead it was decided to have weekly meetings at which the Superintendents and the Senior Manager were invited to participate. These then became known as the Management Meetings.

The purposes of the management meetings were to be:

(i) To identify problems facing the Management Team and the reasons for their existence.

(ii) To invent possible solutions to the problems in the form of necessary change whatever their nature.

(iii) To plan implementation of these solutions through existing or newly constructed channels of communication.

These meetings were held during the lunch break each Thursday and were scheduled to last for $1\frac{1}{4}$ hours.

At first they were typified by individual conflict, individual apathy and the non-participation of certain members of the team. By the end of the fourth month of these meetings however the team had begun to take important decisions regarding Team policy towards methods of work. It became obvious at about this time that the amount of information which was becoming available was too great for meaningful discussion by the team. It was therefore decided, at the request of the Management Team, to hold an 'off-the-job' weekend Seminar.

As in the weekly meetings the Trainer had three major functions at the discussion sessions held during this weekend:

— to focus the Team's attention on doing something constructive about problem areas.

— to ensure that the team dealt with problem areas which might have been sidestepped or evaded.

— to feed back evaluation data.

After the Seminar the Team returned to their weekly meetings with a reported increased insight into their development and the ways in which they were operating. Over the following seven months however relations between the Work Force and the Management Team deteriorated largely because the Senior Management had been unable to fulfil some of the promises they had made when the original agreement had been signed.

During the ninth month of the study an extension of the work with the Management team was developed. Five meetings between the Senior Manager, the Trainer and the Work Units were held at which the members of the Work Force expressed their views on their problems. In all 150 members of the Work Force were involved in these meetings. When further meetings were delayed for three weeks however the rest of the Work Force refused to attend any further meetings.

The situation between the Work Force and the Supervisory Team deteriorated quite rapidly. After approximately one month of individual attempts by most of the Supervisors to gain the confidence of the Work Force, the Supervisory Team began to withdraw increasingly into the 'security' of the Management Team. Finally the Supervisors began to splinter into two groups at the Management Meetings.

As a result it was decided to spend a second weekend at an 'off-the-job' Seminar to discuss the problems of the Work Force 'alienation'. This Seminar like the first seemed to have a beneficial effect.

It was following this second Seminar that the Trainer began to meet passive resistance to his role in the weekly meetings. After a phase in which he re-examined his activities as the Trainer he finally decided to phase out over a three-week period.

One of the major factors influencing his decision to leave was the need for the organisation to continue developing without the influence of a consultant trainer. The resistance was a signal that the team were becoming self-sufficient. In addition he was concerned that he was in danger of being manoeuvered into an 'executive' role in the organisation.

At the final meeting attended by the Trainer, he made clear his willingness to be available to the team as and when they considered necessary. The study had been running for a period of approximately fifteen months and the trainer had attended a total of forty-eight Management Meetings. The continuing role of the Researcher was also discussed at the meeting and it was decided that the final evaluation data should be made available to aid Team development, and that when this had been completed the Team should attempt, with the help of the Researcher, to measure their own effectiveness over time (e.g. evaluate their own development).

What was achieved?

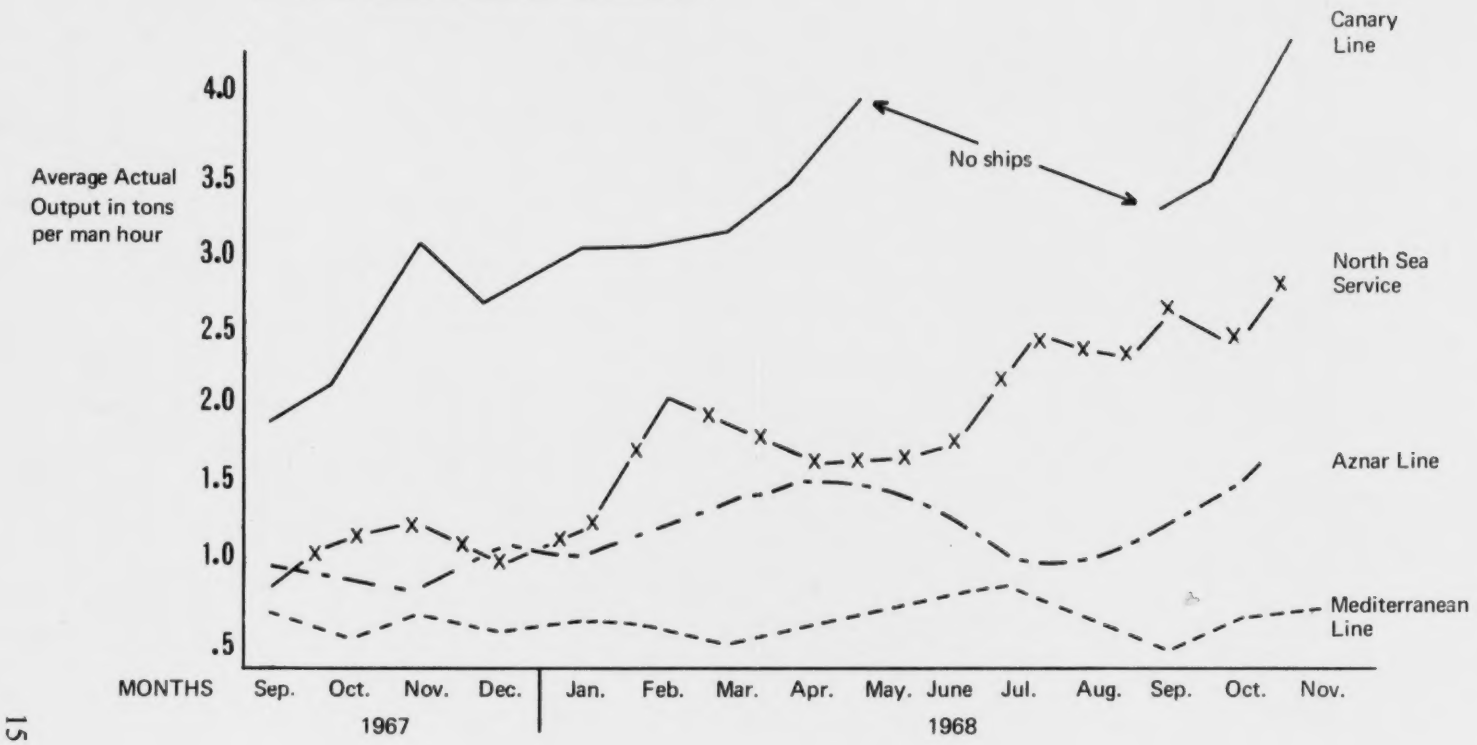
The intention from the start of this project had been to develop a Management Team at Olsens which would be self-regulating and responsible for its own self-development. The evidence from the study suggests that this was at least partly achieved. To quote the Senior Manager:

> "Whatever the limitations of the method, this form of Supervisory Training has led to the development of a Management Team in this Organisation that is now acutely aware of its own strengths and weaknesses, and this fact alone should enable particular individual Supervisors to work on their day to day problems in a supportive, constructively critical atmosphere".

The analysis of the evaluation data showed that important changes had occurred in terms of the change objectives of the study. In particular one of the change objectives used was to demonstrate a decrease in manning costs at the terminal in terms of the tons per man hour loaded and discharged at the two berths. The results can be seen in Diagram II. All of the lines apart from the Mediterranean Line (which was still sending general cargo using the old methods of cargo handling), showed considerable improvement in terms of tonnage per man hour over the evaluation period. The Canary Line is the one line that fully utilised mechanised cargo-handling methods with new ships in the new berth. To the extent that it was this line which showed the most marked overall improvements the Management Team can be said to have been successful.

DIAGRAM 11

Output trends in the Shipping Lines using Millwall between September 1967 and November 1968



It is not intended to suggest that the training programme for the Management Team had in isolation produced the increases shown in Diagram II. There are many possible causes of these increases which have nothing whatsoever to do with the development of the Management Team. Despite the influence of these other variables however, it is still true that the problem-centred training programme which the Team has been through must have played a critical role in events at Olsens. The Senior Manager and the majority of the Supervisory Team in final interviews believed this factor to be the greatest single contribution to the improvement in throughput figures during the evaluation period.

Lessons for the industry

Change in an organisation has no beginning and no end if that organisation is going to continue to adapt to changed circumstances. Olsens is no exception to this rule and for that reason any conclusions drawn as a result of an eighteen month study cannot be final.

Nonetheless the Olsen study offers an insight into the possible requirements of any effective change programme that other employers within the Port Transport Industry might contemplate.

They should appreciate that the introduction of a strategy such as that described in this study may well produce considerable stress within an organisation and that for this reason the Management Team should be heavily committed to change. Obtaining this commitment may be a long and time-consuming process but the alternative if any single member fails to maintain this commitment may be that the entire change strategy will be threatened.

Several limitations of the training strategy used at Olsens became apparent during this study and these need to be borne in mind by other employers:

Firstly, it is necessary for all those involved in change to be consulted about the reason for change and its possible effects.

Secondly, the composition of a Team undergoing training of this nature should be based not on departmental boundaries, but on the reality of effective working relationships. In the Olsen study, therefore, the Work Force should have been consulted more fully on certain issues being discussed by the Management Team.

Thirdly, those involved in the training have to believe implicitly that the new behaviour required of them has relevance to their jobs. They may have to learn some new skills, they may have to develop some new attitudes, they may even have to change their whole frame of reference in order to deal with the new situation. Whatever the nature of these demands they have to see that their job is becoming more satisfying or more challenging as a result of the change.

Finally, the effectiveness of such a training strategy will depend

to a very great extent on the competence of the Trainer. This point is probably best clarified by the Trainer in the Olsen study:

> "One of the major constraints of any work of the nature described is the acceptability of the Trainer/Research Team to the organisation concerned. The influence that the Trainer can exert is directly related to how much he is respected and trusted and this is to a large extent dependent on how 'safe' the people with whom he is working feel in the situation he is influencing. A related problem which arises is that the more any organisation is investigated the more its deficiencies become apparent. Unless a sense of proportion is retained those concerned with its management may dwell too much on what is wrong, losing sight of that which is working successfully."

In addition to these requirements the Olsen study has suggested certain other factors which would be critical for any successful change strategy:

(*a*) The strategy should not attempt to insist on changes at a deeper level than the participants can either see as meaningful or are prepared to be committed to.

(*b*) The objectives of the strategy and its expected pay-off should be agreed by all those involved.

(c) The strategy should have no hidden objectives on the part of either the Trainer, the Management or the Training Team.

(d) The strategy should not be altered without those involved being fully aware of any implications the changes may have for themselves.

(*e*) Their progress should be constantly monitored back to the Training Team. Short-term reports on feedback sessions are likely to be more important, in terms of maintaining commitment to the strategy, than detailed but delayed reports.

This study would suggest that the whole concept of off-the-job training courses leading to supervisory qualifications needs to be re-examined in terms of their relevance to performance on-the-job. The N.E.B.S.S. courses in particular make the assumption that there are certain skills and areas of knowledge which all supervisors should learn, and which can be taught on common training courses, irrespective of the participating supervisor's jobs. This study would tend to throw doubt on this assumption even for the N.E.B.S.S. courses when all the supervisors are from the same industry and similar working environments, particularly if the courses are an isolated training experience.

The training strategy employed at Olsens attempted to assist the individual supervisor to solve his own particular problems as they occurred. Not only did it involve the Supervisors, it involved the whole Management Team. It therefore avoided creating the situation where a

Supervisor returns from a 'package' training course only to find that he is unable to put into practice that which he has learnt because other members of the organisation have not had his training.

This study has revealed many of the pitfalls awaiting other employers who are preparing to institute a change programme. This does not mean that these employers should necessarily adopt the same means for handling change as was adopted at Olsens.

Rather it is to be hoped that employers in the industry may extract principles from this study which they may find useful in their own situation.

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